

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT(S): Friedli, Charles W., et al.)
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APPELLANTS' BRIEF UNDER 37 CFR 41.37

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I. REAL PARTY IN INTEREST

The party named in the caption of this brief is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Applicant, the Applicant's legal representative, or assignee which would directly affect or be directly affected by or having a bearing on the Board's decision in this pending appeal.

III. STATUS OF CLAIMS

Claim 6 is canceled. Claims 1 through 5 and 7 through 14 are rejected and being appealed.

IV. STATUS OF AMENDMENTS

Subsequent to final rejection of July 31, 2006, Applicants submitted an Amendment After Final on September 28, 2006, to correct a typographical error in claim 7, which was entered by the Examiner as noted by the Advisory Action of October 11, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

One aspect of the present invention is a latch for a rechargeable battery pack that comprises a planar member, one or more spring retention posts, one or more insertion snaps, and one or more barbed wing members (FIG. 4, battery pack 400; page 4, lines 20 and 21; FIGs. 2 & 3, latch 200, planar member 201, spring retention post 301, insertion snap 302, & barbed wing member 204; page 3, lines 16 through 23). Each spring retention post, insertion snap and barbed

wing member is coupled to the planar member (page 3, lines 17 through 23). The planar member may be inserted to the rechargeable battery pack in a first linear direction. The spring retention post(s) may be configured to receive a spring force of the rechargeable battery pack directed in a second linear direction opposite the first linear direction. The insertion snap(s) may be configured to resist the spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom. (FIG. 4, latch aperture 407, spring retention post 408, spring 409, and slots 412, 414; page 5, lines 3 through 19). The barbed wing member(s) may extend distally outward from the planar member and support a pair of barbs extending perpendicularly from the barbed wing member(s) (FIG. 2, barbed wing members 204, 205, and barb 208; page 3, line 23, through page 4, line 6).

Another aspect of the present invention is a battery pack that comprises the latch described above (FIG. 4, battery pack 400; page 4, lines 20 and 21). In addition, the battery pack comprises one or more rechargeable battery cells and a housing (FIG. 4, rechargeable cells 401 & housing 405, 406; page 4, lines 21 and 22). The housing comprises a top and a bottom, into which the rechargeable battery cell(s) may be placed, and one or more latch apertures for receiving a battery latch (FIG. 4, housing top 405, housing bottom 406 & latch aperture 407; page 4, lines 21 and 22; page 5, lines 3 and 4).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 through 5, 9 and 12 through 14 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,213,078 to Ferrell, et al. ("Ferrell, et al. patent").

Claims 1 through 5 and 7 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,633,152 to Sharrah, et al. patent ("Sharrah, et al. patent").

Claims 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over the Sharrah, et al. patent in view of the Ferrell, et al. patent.

Claims 10 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Ferrell, et al. patent in view of U.S. Patent No. 4,728,157 to David, Jr. ("David, Jr., patent").

VII. ARGUMENT

A. Claims 1 through 5, 9 and 12 through 14 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,213,078 to Ferrell, et al. ("Ferrell, et al. patent").

Claims 1 and 9 provide, *inter alia*, one or more barbed wing members supporting a pair of barbs extending perpendicularly from the barbed wing member(s). In contrast, the Farrell, et al. patent describes a backup spring 30-3 having a pair of protrusions extending at a slight angle (see FIG. 12), not perpendicularly as required by claims 1 and 9. In the Advisory Action of October 11, 2006, the Examiner states that the pair of protrusions of no. 30-3 can reasonably be considered to be connected perpendicularly, even though they have a slight slant. The Advisory Action further states that the Farrell, et al. patent implies the pair of protrusions will bend (i.e., back up spring) to a perpendicular level when inserted into the holding slot, as shown in FIG. 2.

What the Examiner believes to be perpendicular, the Applicants believe to be co-linear. In previous Office Actions, the Examiner has referenced the barbed wing member to be either the right or left side of the middle portion of no. 30-3 in FIG. 12 and the pair of barbs to be the edges at the top and bottom of no. 30-3 in FIG. 12 which stick out from the middle portion of no. 30-3 (see page 3, lines 8 through 13, of the Office Action of July 31, 2006). Applicants believe that FIG. 12 clearly shows the top and bottom of no. 30-3 to be co-linear or substantially co-

linear (at the slight angle) with the middle portion of no. 30-3. The Examiner's belief that FIG. 12 shows the top and bottom of no. 30-3 to be perpendicular to the middle portion of no. 30-3 is clearly mistaken. This is clearly true when, as assumed by the Examiner in the Advisory Action, they are bent (i.e., back up spring) to a co-linear level when inserted into the holding slot, as shown in FIG. 2.

Claims 2 through 5 and 12 through 14 depend from and include all limitations of independent claims 1 and 9. Therefore, claims 2 through 5 and 12 through 14 distinguish patentably from the Ferrell, et al. patent for the reasons stated above for claims 1 and 9.

B. Claims 1 through 5 and 7 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,633,152 to Sharrah, et al. patent ("Sharrah, et al. patent").

In addition to the barbed wing member and pair of barbs discussed above, claims 1 and 9 further provide, *inter alia*, a planar member configured for insertion to the rechargeable battery pack in a first linear direction, and at least one insertion snap coupled to the planar member configured to resist a spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom. The Sharrah, et al. patent describes a unitary latch member 80 having various sections angled relative to each and rotating about a pivot 83. In the above Advisory Action, the Examiner states that both no. 82 and the protrusion to the left of arrow no. 80 in FIG. 9 are reasonably considered barbs, which extend perpendicularly and are supported by latch no. 80, which is a barbed wing member.

If no. 82 and the protrusion to the left of arrow no. 80 are barbs, then the entire section of the latch member 80 must be the barbed wing member, since claims 1 and 9 require the barbs to extend from the barbed wing member. This configuration asserted by the Examiner results in no remaining part of the latch member corresponding to the planar member (certainly not a planar

member for insertion in a linear direction) nor the insertion snap. Previous Office Actions indicate that the planar member corresponds to the upper end 81 (which rotates about pivot 83 and does not move linearly) but, based on the Examiner's statement above in the Advisory Action, the upper end 81 must be the barbed wing member, not the planar member. Thus, the Advisory Action is inconsistent with previous Office Actions, such as page 6 of the Office Action of July 31, 2006. Previous Office Actions also refer to the projection 82 as corresponding to the insertion snap (see page 6, lines 10 through 12, of the Office action of July 31, 2006). This assertion is inconsistent with the Advisory Action, which states that projection 82 corresponds to one of the barbs.

Claims 2 through 5 and 7 depend from and include all limitations of independent claim 1. Therefore, claims 2 through 5 and 7 distinguish patentably from the Sharrah, et al. patent for the reasons stated above for claim 1.

C. Claims 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over the Sharrah, et al. patent in view of the Ferrell, et al. patent.

Please see explanations provided above for the Sharrah, et al. and Ferrell, et al. patents. Claim 8 also distinguishes from the suggested combination of the Sharrah, et al. and Ferrell, et al. patents.

D. Claims 10 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Ferrell, et al. patent in view of U.S. Patent No. 4,728,157 to David, Jr. ("David, Jr., patent").

The David, Jr. patent does not David, Jr. patent do not describe or suggest a barged wing member or a pair of barbs extending perpendicularly from the barbed wing members, as required

by the claims. Thus, claims 10 and 11 also distinguishes from the suggested combination of the Ferrell, et al. patent and the David, Jr., patent.

For the reason set forth above, Applicant respectfully requests reconsideration of the claims as pending in view of the above remarks.

Respectfully submitted,
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VIII. CLAIMS APPENDIX

1. A latch for a rechargeable battery pack, comprising:
 - a. a planar member configured for insertion to the rechargeable battery pack in a first linear direction;
 - b. at least one spring retention post coupled to the planar member configured to receive a spring force of the rechargeable battery pack directed in a second linear direction opposite the first linear direction;
 - c. at least one insertion snap coupled to the planar member configured to resist the spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom; and
 - d. at least one barbed wing member coupled to the planar member, extending distally outward from the planar member, wherein the at least one barbed wing member supports a pair of barbs extending perpendicularly from the at least one barbed wing member.
2. The latch of claim 1, further comprising at least one mechanical stop coupled to the planar member.
3. The latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar geometric relationship with the planar member.
4. The latch of claim 2, further comprising a finger grip on the planar member.

5. The latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from a first edge of the planar member, and a second barbed wing member extends distally from a second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear.

6. (Canceled)

7. The latch of claim 1, wherein the pair of barbs comprises at least one inclined planar member.

8. The latch of claim 7, wherein the latch is manufactured from a material selected from the group consisting of plastics, styrene, ABS, polystyrene, acrylic, polycarbonates, resin, and rubber.

9. A battery pack, comprising:
 - a. at least one rechargeable battery cell;
 - b. a housing comprising a top and a bottom, into which the at least one rechargeable battery cell is placed, wherein the housing comprises at least one latch aperture for receiving a battery latch; and
 - c. a latch comprising:
 - a planar member configured for insertion to the battery pack in a first linear direction;
 - at least one spring retention post coupled to the planar member configured to receive a spring force of the rechargeable battery pack directed in a second linear direction opposite the first linear direction;
 - at least one insertion snap coupled to the planar member configured to resist the spring force and maintain the planar member at a particular position relative to the rechargeable battery pack until released therefrom; and
 - at least one barbed wing member, coupled to the planar member, the at least one barbed wing member extending distally outward from the planar member and supporting a pair of barbs extending perpendicularly from the at least one barbed wing member.

10. The battery pack of claim 9, further comprising a butterfly spring.
11. The battery pack of claim 10, wherein the latch aperture comprises at least one spring retention post.
12. The battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one insertion snap.

13. The battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one mechanical stop.

14. The battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one barbed wing member.

IX. EVIDENCE APPENDIX

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132, entered by the examiner and relied upon by the appellant in the appeal, or relied upon by the examiner as to grounds of rejection to be reviewed on appeal.

X. RELATED PROCEEDINGS APPENDIX

No decisions have been rendered by a court of the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. § 41.37.